

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A stream data processing apparatus for performing multiple processing steps of during a processing for of stream data, said stream data processing apparatus comprising:

a transmitting-end processing section for performing a process processing step, of one of ~~the~~ said multiple processing steps, of processing ~~for~~ data contained in the stream data, and transmitting the processed data;

a receiving-end processing section for receiving the processed data transmitted from ~~the~~ said transmitting-end processing section, for receiving empty data, and for performing a another processing process step, of a next one of ~~the~~ said multiple processing steps, of processing ~~for~~ the received data;

a control section for transmitting a change signal, instructing a change of a subject of processing, to ~~the~~ said transmitting-end processing section and ~~the~~ to said receiving-end processing section;

a data temporary storage section for temporarily storing the processed data transmitted from ~~the~~ said transmitting-end processing section;

an empty data storage section for erasing any data written thereto in response to a data write, and for returning empty data in response to a data read; and

a connection management section for allowing the processed data transmitted from ~~the~~ said transmitting-end processing section and empty data to be received by ~~the~~ said receiving-end processing section, via said data temporary storage section and said empty data storage section, respectively, by performing a the data write to and a the data read for the from said data temporary storage section and ~~the~~ said empty data storage section, wherein:

wherein,

said control section, said transmitting-end processing section, said receiving-end processing section, and said connection management section are interconnected and configured such that, if a change signal change of the subject of processing is instructed is transmitted from the said control section, the (i) to said transmitting-end processing section, said transmitting-end processing section is operable to output a transmitting-end clear request to said connection management section, and the (ii) to said receiving-end processing section, said receiving-end

processing section is operable to output a transmitting-end clear request and a receiving-end clear request, respectively, to the said connection management section, and; and

the said connection management section-switches is operable to switch both (i) a write destination for the processed data transmitted from the said transmitting-end processing section, and (ii) a read source of any data, including the processed data transmitted from said transmitting-end processing section and empty data returned from said empty data storage section, to be received by the said receiving-end processing section, between said data temporary storage section and said empty data storage section, depending on whether the said connection management section is in (i) a normal operation state, (ii) a receiving-end clear wait state which exists after the transmitting-end clear request is received by said connection management section and until the receiving-end clear request is received by said connection management section, or (iii) a transmitting-end clear wait state which exists after the receiving-end clear request is received by said connection management section and until the transmitting-end clear request is received by said connection management section.

Claim 2 (Currently Amended) The stream data processing apparatus according to claim 1, wherein the said connection management section is operable to:

select the said data temporary storage section as the write destination and the read source when said connection management section is in the normal operation state;

erase the processed data stored in the said data temporary storage section if the transmitting-end clear request or the receiving-end clear request is received when said connection management section is in the normal operation state;

select the said empty data storage section as the read source when said connection management section is in the receiving-end clear wait state; and

select the said empty data storage section as the write destination when said connection management section is in the transmitting-end clear wait state.

Claim 3 (Currently Amended) The stream data processing apparatus according to claim 1, wherein the said connection management section is operable to:

select the said data temporary storage section as the write destination and the read source when said connection management section is in the normal operation state;

erase the processed data stored in ~~the~~ said data temporary storage section if the receiving-end clear request is received when said connection management section is in the normal operation state;

select ~~the~~ said empty data storage section as the write destination when said connection management section is in the transmitting-end clear wait state;

wherein, when said connection management section is in the receiving-end clear wait state said connection management section is operable to: [[,]]

~~regard~~ designate as old data any data ~~that is~~ stored in ~~the~~ said data temporary storage section when the transmitting-end clear request has been received; [[,]]

select₁ as the write destination₁ a region in ~~the~~ said data temporary storage section where the old data is not stored; [[,]] ~~and~~

select₂ as the read source₂ a region in ~~the~~ said data temporary storage section where the old data is stored while the old data is present; [[,]] and

select ~~the~~ said empty data storage section as the read source once the old data is no longer present; and

erase the old data if the receiving-end clear request is received when said connection management section is in the receiving-end clear wait state.

Claim 4 (Currently Amended) The stream data processing apparatus according to claim 1, wherein ~~the~~ said transmitting-end processing section and ~~the~~ said receiving-end processing section ~~output~~ are operable to output the transmitting-end clear request and the receiving-end clear request, respectively, and perform transmission and reception of any data by using a data ~~transmission/reception~~ transmission section and a data reception section, respectively, which provides ~~a~~ an accessing function to ~~the~~ said connection management section.

Claim 5 (Currently Amended) The stream data processing apparatus according to claim 1, wherein ~~the~~ said connection management section is operable to select ~~structured to be capable of selecting~~, if ~~the~~ any data transmitted from ~~the~~ said transmitting-end processing section cannot be written to ~~the~~ said data temporary storage section, whether to (i) perform a process of immediately notifying an error to ~~the~~ said transmitting-end processing section, or (ii) perform a process of waiting until it becomes possible to write any data to ~~the~~ said data temporary storage

section and perform a process of notifying to the said transmitting-end processing section a result of writing any data to ~~the said~~ data temporary storage section.

Claim 6 (Currently Amended) The stream data processing apparatus according to claim 1, wherein ~~the said~~ connection management section is operable to select structured to be capable of selecting, if any data to be received by ~~the said~~ receiving-end processing section cannot be read from ~~the said~~ data temporary storage section, whether to (i) perform a process of immediately notifying transmitting an error to the said receiving-end processing section, or (ii) perform a process of waiting until it becomes possible to read any data from the said data temporary storage section and perform a process of notifying to the said receiving-end processing section a result of reading any data from the said data temporary storage section.

Claim 7 (Currently Amended) The stream data processing apparatus according to claim 1, further comprising a data input section ~~via which to input~~ for receiving the stream data as an input.

Claim 8 (Currently Amended) The stream data processing apparatus according to claim 7, wherein ~~the said~~ data input section is operable to receive the input of inputs the stream data from a removable recording medium.

Claim 9 (Currently Amended) The stream data processing apparatus according to claim 1, further comprising a data output section for outputting the stream of data as a result of performing the multiple processing steps ~~of processing for the stream data.~~

Claim 10 (Currently Amended) The stream data processing apparatus according to claim 9, wherein ~~the said~~ data output section is operable to output outputs, to a removable recording medium, the result of performing the multiple processing steps ~~of processing to a removable recording medium.~~

Claim 11 (New) The stream data processing apparatus according to claim 1, wherein said transmitting-end processing section and said receiving-end processing section are operable to

output the transmitting-end clear request and the receiving-end clear request, respectively, independent of one another.